CONFERENCE ON ARTERIAL HYPERTENSION: DIAGNOSIS AND MANAGEMENT*

General Discussion, Afternoon Session

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Discussants

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DR. CHASIS: What is your opinion, Dr. Brust, of an airline pilot with mild essential hypertension, uncomplicated, who takes an antihypertensive drug while flying?

DR. BRUST: I should have no objection. I believe the Federal Aviation Agency would permit the use of a thiazide.

DR. FREIS: This is a problem for the doctor who takes care of airline pilots, for the flight surgeons. I should not like to fly in a plane piloted by a pilot who took reserpine because he might decide to commit suicide on the flight. But I think that there are certain drugs that a pilot could take. Among them I should certainly risk thiazide and also, I think, hydralazine and possibly methyl-dopa if the pilot were carefully checked.

DR. CHASIS: Do you treat systolic hypertension: for example, blood pressure 210 over 80 mm. Hg?

DR. BRUST: Ordinarily not, but I think one would have to have further information as to why this kind of pressure was present. If all other causes of a wide pulse pressure other than arteriosclerosis were excluded and if the patient were symptomatic—by that I mean, suffering from headaches or dizziness, as appears quite commonly—I should not object to a cautious trial on reserpine.

*Held by the New York Heart Association at The Waldorf-Astoria, New York, N. Y., January 29, 1969.

DR. CHASIS: Has any antihypertensive drug been implicated in ventricular arrhythmias?

DR. GIFFORD: Let us consider a special situation. For instance, a patient on digitalis who becomes hypokalemic on thiazide may well develop arrhythmias. This is the most common problem which may result from hypokalemia induced by thiazide. I have not had similar trouble in any patient with normal renal function, not on digitalis, who developed severe hypokalemia.

DR. CHASIS: Do you treat hyperuricemia that develops with thiazide therapy?

DR. BRUST: I do if the hyperuricemia is sufficiently severe; certainly if it produces gout. If it ranges up to 6, I permit the patient to be hyperuricemic. I think this opinion is open to question, because perhaps the time will come when we shall find this has been a mistake. At the present time, I am not opposed to using allopurinol in an effort to correct or control hyperuricemia in a patient who otherwise needs a diuretic.

DR. CHASIS: Is it true that incidence of the accelerated phase of hypertensive disease is decreasing and, if it is, what are the probable reasons? All four members of the panel may answer this.

DR. FREIS: I do not know whether it is decreasing. I think it is a sort of impression that everyone has. If it is decreasing, I think it is probably due to antihypertensive agents.

DR. HAMILTON: I agree with that. I do not know whether it is, in fact, decreasing. I suspect that it is, and I suspect that it is decreasing because more doctors are aware of the dangers of raised arterial pressure and the ability of the present drug treatment to control this and prevent the complications.

DR. GIFFORD: I do not think there is any question but that it is decreasing unless, of course, patients with malignant hypertension are going for treatment to facilities other than the Cleveland Clinic. As a matter of fact we have trouble finding patients with malignant (Group IV) hypertension for studies that we want to do.

When we do find patients with Group IV hypertension, they almost always have something besides essential hypertension, such as pheochromocytoma or renal vascular disease, or are in the final stage of renal failure from chronic glomerulonephritis. We rarely see a patient with ordinary essential hypertension develop a malignant phase.

I go on record as saying unequivocally that this is due to the use of antihypertensive agents.

DR. BRUST: Let me express an opinion and say that I think it is different in every community. In 1950 it was an easy matter to find 100 patients with a clinical diagnosis of malignant hypertension in a single year in the records of the Cincinnati General Hospital. In the middle 1950's, at Grady Hospital, Atlanta, Ga., it took two or two-and-a-half years to get the same number of patients.

Now I deal primarily with private hospitals, and see such patients rarely. I agree with Dr. Gifford. I think there has been a definite reduction in at least what we see and recognize as the accelerated phase of hypertension.

DR. FREIS: I work in a hospital in Washington, D. C., that takes patients who are mostly indigent. Many of them are Negro. Many of them do not get medical care, and we still see many cases of malignant hypertension. That was one of the reasons why I thought it might be due to antihypertensive agents.

DR. CHASIS: Do you think the factor of terminology has entered into this apparent decrease? Dr. Gifford said that he does see patients with chronic glomerulonephritis and other diseases who have malignant hypertension. Are we now beginning to recognize the fact that malignant nephrosclerosis associated with other diseases can now be differentiated from the accelerated phase of hypertensive disease? If we recognize a patient with malignant hypertension as having scleroderma, polyarteritis, or chronic diffuse glomerulonephritis, we do not classify him as malignant hypertension. Can that help explain why we think we are seeing fewer?

DR. BRUST: This is one of the explanations why Dr. Freis sees more cases of malignant hypertension than the rest of us do now in the clientele he serves in Washington. This is the same group that Dr. Grimson used to talk about in Durham, N. C. It was the Negro in the Eastern United States that had this problem, and who had it so severely.

DR. CHASIS: Here is a question that would pertain to this. Dr. McManus, the pathologist, has recently stated that he doesn't think malignant hypertension is related to benign nephrosclerosis. He thinks it is a separate disease and does not believe that it develops in the course of essential hypertension.

We have talked on this occasion in terms of preventing malignancy of accelerated phase of essential hypertension by treatment. Yet a competent pathologist who has been looking at kidneys for 35 years or so has arrived at the conclusion that the diseases are not related. Have you given thought to that?

DR. FREIS: We observed patients in our placebo groups who developed the clinical syndrome of malignant hypertension; they were not under any treatment. Also, I think that when these patients come to autopsy you usually find a mixture of benign and malignant nephrosclerosis. Maybe there is a very acute fulminant form of hypertension which may be cured but the great majority of them are somewhat mixed.

DR. BRUST: Dr. Helmer has demonstrated the findings of the difference in aldosterone secretion between benign and malignant hypertension. Whether this is cause and effect or whether the aldosterone occurs as a result of the accelerated phase I do not think he expressed an opinion. That information certainly would suggest that they are not necessarily part and parcel of the same disorder.

DR. CHASIS: When, if ever, do you not treat hypertension?

DR. FREIS: It is very hard to generalize about that because we do not really have the evidence on which to decide. In general I do not think I treat women past the age of 50 whose blood pressure goes down to normal when they are hospitalized, or whose blood pressure at home is normal.

I do not think I should treat any patient whose diastolic pressure drops below 90 at home without treatment other than placebo; or, below 100, past the age of 50. But in a younger individual, below 40, I think I should treat all of those whose basal pressures persistently remain above 90.

DR. HAMILTON: I become increasingly discriminating as I advance in age. If I should survive to the age of 75 and be found to have a high blood pressure, I might be most incensed if anybody tried to fill me with the pills we now give to our patients. I think there are certain complications of either a raised pressure or arteriolar changes which make it inadvisable to prescribe such treatment.

A person can have a severe manometric hypertension following a cerebrovascular accident but be left in such a state, physical or mental,

as to make treatment of the hypertension unnecessary or undesirable. I think that is obvious.

The difficult problem is at the other age range that Dr. Freis referred to, the younger patient with manometric hypertension who is symptomless. I cannot, unfortunately, have the luxury of admitting my patients to hospital for inpatient study, and so most of my pressures have to be measured in the clinic. But if a patient under 50 remains over a period of months with a persistent diastolic hypertension of 110 or more, I should treat him, in the absence of symptoms or complications. But at present I do not think there is any evidence to suggest that treatment of hypertension at the lesser grades is of any benefit.

DR. BRUST: I agree with the comments that have been made. In fact I go one step further and again say that on the matter of the home blood pressure, I do not personally feel that we even have to argue about home blood pressure recordings any more. I think that the drugs and the regimens are sufficiently good and that it is not necessary for us to inflict these problems on our patients.

DR. GIFFORD: I disagree pretty much with that. I think patients who have orthostatic hypotension in the morning and hypertension in the afternoon, as many of my patients do because of the diurnal effect of guanethidine, should have their pressures taken at home.

I know of no substitute for recording the patient's blood pressures at home. I do not see how you can possibly evaluate the effects of the regimen on the patient whose blood pressure may be 80 over 50 when he stands up in the morning, and by mid-afternoon, in your office, has 220 over 130 sitting down. There is no substitute for home blood-pressure recordings in such a patient.

Moreover, patients with milder hypertension are more cooperative, and they are less likely to discontinue medication if they are taking their own blood pressures. I am a great enthusiast for home blood-pressure recordings.

DR. CHASIS: What criteria would you use if you were performing a preemployment medical examination to evaluate future risks for steady employment of a hypertensive patient?

DR. BRUST: I concur with Dr. Gifford. I should rather have an ophthalmoscope than a blood-pressure cuff. But that does not answer the issue here, which is, I gather, to find a blood-pressure level safe for all occupations. Most of my hypertensive patients under treatment

are gainfully employed and have not had difficulty with jobs they are called upon to do.

I suppose that if we got into the same issue about reserpine or postural effects, and about someone who was operating a machine, consideration of that might be introduced. Otherwise I think there are no criteria other than general health and ability to function in the environment that will restrict the patient.

DR. CHASIS: Do you think the therapy of essential hypertension has significantly affected life expectancy? If you would like to end the afternoon profitably you might answer that in a phrase or two.

DR. BRUST: I think, very definitely, yes.

DR. FREIS: I think if the diastolic pressure is above 110, antihypertensive therapy is definitely beneficial.

DR. HAMILTON: I say, very definitely, yes.

DR. GIFFORD: I concur.